

ABSTRACT OF THE DISCLOSURE

An integrated head assembly (100) is disclosed for a nuclear reactor. The preferred integrated head assembly includes a lift assembly (150) that supports the reactor vessel closure head (90) and integrated head assembly for removal, a separate support structure (202) supported by a ring beam (151) that sets atop the reactor vessel closure head, a shroud assembly (200), a seismic support system (300), a baffle assembly (500), a missile shield (400), and a CRDM cooling system. The CRDM cooling system draws cooling air into the baffle assembly, downwardly past the CRDMs (96), outwardly to upright air ducts (600), upwardly to an upper plenum (680), and out of the assembly through the air fans (190). In a second embodiment the integrated head assembly (1100) includes a missile shield (1400) and CRDM cooling system (1600) that permits access to individual CRDMs from above.

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